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NASA TECH BRIEF

Inexpensive Infrared Source Improvised from Flashlight

The problem:

To devise an inexpensive hand-held source of infrared energy that can be used for checking infrared sensors and for experimental purposes. The device should transmit an infrared beam over a distance of several feet and incorporate a simple means of adjusting the wavelength of the radiation.

The solution:

Coat a flashlight bulb used in a conventional five-cell flashlight with a paint that filters out the visible light emitted by the bulb and allows only the infrared radiation to be transmitted.

How it's done:

Two coats of zinc chromate primer followed by two coats of flat black enamel or lacquer are applied to the bulb. Wavelengths in the range from 0.4 to 40 microns will be transmitted, depending on the particular coatings used. A potentiometer or other means of adjusting the bulb voltage is used to alter the wavelength over a narrow bandwidth.

Note:

Inquiries concerning this innovation may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama, 35812
Reference: B66-10096

Patent status:

No patent action is contemplated by NASA.

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Marshall Space Flight Center
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Category 02